TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/608,935
Filing Date	June 27, 2003
First Named Inventor	Nicholas Grant Rasmussen et al.
Group Art Unit	Unknown
Examiner Name	Unknown

Total Number of Pages in This Submission	12	Attorney Docket Number	300-80100

ENCLOSURES *(check all that apply)*

- [ ] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment/Response
  - [ ] After Final (Response)
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [x] Information Disclosure Statement, Form PTO-1449 and 31 references
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53

- [ ] Assignment Papers *(for an Application)*
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition Routing Slip (PTO/SB/69) and Accompanying Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____

- [ ] After Allowance Communication to Group
- [ ] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
- [ ] Proprietary Information
- [ ] Status Inquiry
- [x] Other Enclosure(s) *(please identify below)*:
  Return Receipt Postcard
  Certificate of Mailing

Remarks	**Please charge any necessary fees or credit overpayment to Deposit Account No. 502305. A duplicate copy of this transmittal is attached for this purpose.**

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm *or* Individual name	Mark C. Pickering, Reg. No. 36,239
Signature	*[signature]*
Date	October 27, 2003

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this date: | October 27, 2003

Typed or printed name	Robin L. King		
Signature	*[signature]*	Date	October 27, 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Group Art Unit: Unknown
)	
Nicholas Grant Rasmussen et al.)	Examiner: Unknown
)	
Application No.: 10/608,935)	INFORMATION DISCLOSURE
)	STATEMENT
Filed: June 27, 2003)	
)	
For: APPARATUS AND METHOD OF)	
SIMULATING THE MOVEMENT OF)	
ELEMENTS THROUGH A REGION OF 3D)	
SPACE)	
)	
)	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant submit herewith information of which applicant is aware, which applicant believes may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR § 1.56.

This Information Disclosure Statement:

(a) [ ] accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).

(b) [ ] is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.

(c) [X] as far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits.

(d) [ ] is filed after the first office action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance, whichever occurs first, and is accompanied by either the fee ($180) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

(e) [ ] is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and is accompanied by the fee ($180) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement.

[If either of boxes (d) or (e) are checked above, the following "certification" under 37 CFR § 1.97(e) may need to be completed.] The undersigned certifies that:

(f) [ ] Each item of information contained in the information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this information disclosure statement.

(g) [ ] No item of information contained in this information disclosure statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this information disclosure statement.

A list of the patent(s) or publications(s) is set forth on the attached Form PTO-1449 (Modified). A copy of the items on PTO-1449 (Modified) is supplied herewith:

(h)   [X] each   (i) [ ] none   (j) [ ] only those listed below:

Those patent(s) or publication(s) which are marked with an asterisk (*) in the attached form PTO-1449 (Modified) are not supplied because they were previously cited by or submitted to the Office in a prior application no. _____ filed _____ and relied upon in this application for an earlier filing date under 35 U.S.C. § 120.

A concise explanation of relevance of the described above and attached information is:

(k)   [X]   not given

(l)   [ ]   given for each listed item

(m)   [ ]   given for only non-English language listed item(s) [Required]

(n)   [ ]   is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

While the information disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR § 1.56, it is not intended to constitute an admission that the
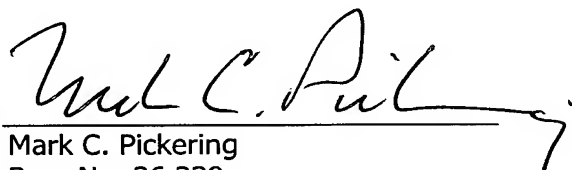
information referred to is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR § 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR § 1.98 and MPEP § 609 and the Examiner is respectfully requested to consider the above-described and attached information.

The Commissioner is hereby authorized to charge our Deposit Account No. 502305 for any fees required in connection with the filing of the Information Disclosure Statement. **A duplicate copy of this Notice is enclosed for this purpose.** In particular, in the event that an Office Action has cross in the mail with this Information Disclosure Statement, the Commissioner is authorized to charge the above-named deposit account for any fees required pursuant to 37 C.F.R. §1.17(p) or 1.17 (i) (1).

Respectfully submitted,

Dated: _10 - 27- 03_   By: _Mark C. Pickering_

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Reg. No. 36,239

Attorney for Assignee

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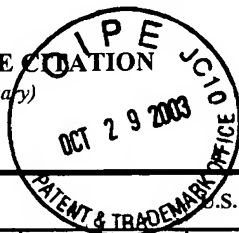|					
INFORMATION DISCLOSURE CITATION *(Use several sheets if necessary)*	Docket Number (Optional) **300-80100**		Application Number **10/608,935**
	Applicant(s) **Nicholas Grant Rasmussen et al.**		
	Filing Date **June 27, 2003**	Group Art Unit **Unknown**	

IPE JC10 OCT 2 9 2003 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation YES	NO

OTHER DOCUMENTS   *(Including Author, Title, Date, Pertinent Pages, Etc.)*

		J.F. Blinn, "Light Reflection Functions for Simulation of Clouds and Dusty Surfaces", Computer Graphics Volume 16, No. 3, 1982, pps. 21-29.
		K. Brodlie and J. Wood, "Recent Advances in Volume Visualization", Computer Graphics Forum 20, 1, 2001, pps. 125-148. (Copy of Submitted Article, pages 1-23.)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-A820
(also form PTO-1449)

P09A/REV04

Patent and Trademark Office * U.S. DEPARTMENT OF COMMERCE

SHEET 1   OF 4

INFORMATION DISCLOSURE CITATION *(Use several sheets if necessary)*	Docket Number (Optional) **300-80100**	Application Number **10/608,935**
	Applicant(s) **Nicholas Grant Rasmussen et al.**	
	Filing Date **June 27, 2003**	Group Art Unit **Unkn wn**

*EXAMINER INITIAL	OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*
	M. Desbrun and M.-P. Cani, "Smoothed Particles: A New Paradigm for Animating Highly Deformable Bodies", In Computer Animation and Simulation '96, Proceedings of EG Workshop on Animation and Simulation, Springer-Verglag, R. Boulic and G. Hegron, Eds., 1996, pps. 61-76. Published Under the Name Marie-Paule Gascuel.
	Y. Dobashi et al., "A Simple, Efficient Method for Realistic Animation of Clouds", In SIGRRAPH 2000 Conference Proceedings, Annual Conference Series, 2000, pps. 19-28.
	D.S. Ebert and R.E. Parent, "Rendering and Animation of Gaseous Phenomena by Combining Fast Volume and Scanline A-Buffer Techniques", In Proceedings of SIGGRAPH 1990, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1990, pps. 19-28.
	D. Enright et al., "Animation and Rendering of Complex Water Surfaces", In Proceedings of SIGGRAPH 2001, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2002, pps. 736-744.
	R. Fedkiw et al., "Visual Simulation of Smoke", In Proccedings of SIGGRAPH 2001, ACM Press/ACM SIGGRAPH, E. Fiume, Ed., Computer Graphics Proceedings, Annual Conference Series, ACM, 2001 pps. 15-22.
	N. Foster and R. Fedkiw, "Practical Animation of Liquids", In Proccedings of SIGGRAPH 2001, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2001, pps. 23-30.
	N. Foster and D. Metaxas, "Realistic Animation of Liquids", Graphical Models and Image Processing 58, 1996, pps. 471-483. (Paper, pp. 1-24.)
	N. Foster and D. Metaxas, "Modeling the Motion of a Hot, Turbulent Gas", In Proceedings of SIGGRAPH 1997, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1997, pps. 181-188. (Paper, pp. 1-9, only first page numbered.)
	G.Y. Gardner, "Visual Simulation of Clouds", In Proceedings of SIGGRAPH, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1985, pps. 297-384.
	R.A. Gingold and J.J. Monaghan, "Smoothed Particle Hydrodynamics: Theory and Application to Non-Spherical Stars", Mon. Not. R. Astron. Soc 181, 1977, pps. 375-389.
	G. Yngve et al., "Animating Explosions", In Proccedings of SIGGRAPH 2000, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2000, pps. 29-36.
	J. Stam, "Stable Fluids", In SIGGRAPH 99 Conference Proceedings, Annual Conference Series, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1999, pps. 121-128.

EXAMINER	DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

P09B/REV04

INFORMATION DISCLOSURE CITATION *(Use several sheets if necessary)*	**Docket Number (Optional)** 300-80100	**Application Number** 10/608,935
	Applicant(s) Nicholas Grant Rasmussen et al.	
	Filing Date June 27, 2003	**Group Art Unit** Unknown

*EXAMINER INITIAL	OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*
	J.T. Kajiya and B.P. Von Herzen, "Ray Tracing Volume Densities", In Proceedings of SIGGRAPH 1984, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference, ACM, 1984, pps. 165-174.
	A. Lamorlette and N. Foster, "Structural Modeling of Flames for a Production Environment", In Proceedings of SIGGRAPH 2002, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 2002, pps. 729-735.
	R. Szeliski and D. Tonnesen, "Surface Modeling with Oriented Particle Systems", Computer Graphics, SIGGRAPH Proc., 1992, pps. 185-194.
	M. Levoy, "Display of Surfaces From Volume Data", IEEE Computer Graphics and Applications 8, 3, 1998, pps. 29-37. (Paper, pp. 1-10.)
	J. Steinhoff and D. Underhill, "Modification of the Euler Equations for "Vorticity Confinement": Application to the Computation of the Interacting Vortex Rings", Physics of Fluids 6, 8, 1994, pps. 2738-2744.
	R. Miyazaki et al., "Simulation of Comuliform Clouds Based on Computational Fluid Dyanmics", Proc. Eurographics 2002, Short Presentation, 2002, pps. 405-410.
	M. Neff and E. Fiume, "A Visual Model for Blast Waves and Fracture", In Proceedings of Graphics Interface 1999, 1999, pps. 193-202. (Paper, pp. 1-10, unnumbered.)
	D. Nguyen, "Physically Based Modeling and Animation of Fire", In Proceedings of SIGGRAPH 2002, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference, ACM, 2002, pps. 721-728.
	J. Wejchert and D. Haumann, "Animation Aerodynamics", Computer Graphics, Volume 25, No. 4, 1991, pps. 19-22
	K. Perlin, "An Image Synthesizer", In Proceedings of SIGGRAPH 1985, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1985, pps. 287-296, Vol. 19, No. 3.
	M.J. Rudolf and J. Raczkowski, "Modeling the Motion of Dense Smoke in the Wind Field", Computer Graphics Forum, Volume 19, No. 3, 2000.
	G. Sakas, "Fast Rendering of Arbitrary Distributed Volume Densities", In Proceedings of Eurographics, 1990, pps. 519-530.

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INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)

Applicant(s)
Nicholas Grant Rasmussen et al.

Filing Date	Group Art Unit
June 27, 2003	Unknown

*EXAMINER INITIAL		OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*
		L. Yaeger and C. Upson, "Combining Physical and Visual Simulation - Creation of the Planet Jupiter for the Film 2010". In Proceedings of SIGGRAPH 1986, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1986, pps. 85-93.
		J. Stam and E. Fiume, "Turbulent Wind Fields for Gaseoius Phenomena", In Proceedings of SIGGRAPH 1993, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 1993, pps. 369-376. (Paper, pp. 1-7, unnumbered.)
		G. Sakas, "Modeling and Animating Turbulent Gaseous Phenomena Using Spectral Synthesis", The Visual Computer 9, 1993, pps. 200-212.
		K. Mueller et al., "Splatting Without The Blur", pps. 1-9.
		L. Westover, Numerical Design Limited, "Footprint Evaluation For Volume Rendering", Computer Graphics, Vol. 24, Number 4, August 1990, pps. 367-376.

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